

SETUP GUIDELINES FOR SIMREMOTE WITH A GSS9000

ABSTRACT

This document is a guide to configuring SimREMOTE to communicate with a GSS9000-series signal generator and C50r SimGEN Host

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general

1.1 SCOPE & APPLICABILITY

This document describes the steps to connect a SimREMOTE PC with a simulator using a GSS9000-series signal generator with a C50r SimGEN Host.

1.2 REFERENCED DOCUMENTS

- a) DGP00792AAA SimREMOTE User Manual
- b) DGP00686AAA SimGEN user manual

2 INTRODUCTION

Note: Internally, the C50r SimGEN Host uses the local IP addresses 192.168.25.n and 192.168.26.n. Spirent recommends you ensure any LAN you use, including a corporate LAN, does not use these IP Addresses

The TCP/IP settings for a simulator using a GSS9000-series signal generator with a C50r SimGEN Host are more complex due to the nature of the C50r SimGEN Host; reference b) gives more details on the C50r SimGEN Host. This document lists the steps to configure a C50r SimGEN Host and SimREMOTE PC to enable remote control of the GSS9000-series signal generator. Figure 1 shows the typical interconnections between a SimREMOTE PC and the C50r SimGEN Host.

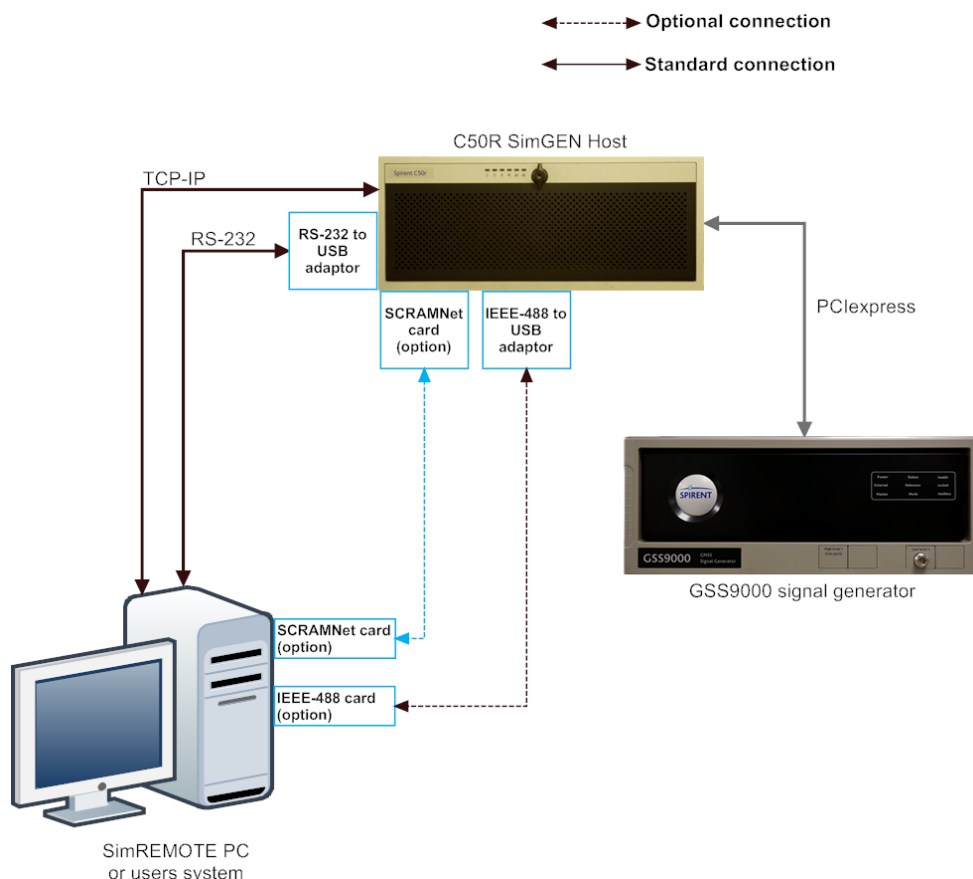


Figure 1 SimREMOTE - interconnections to the C50r SimGEN Host

3 DIRECT POINT TO POINT REMOTE SETUP

This section describes setting up a direct, remote connection between the SimREMOTE PC and the C50r SimGEN Host.

3.1 SETTINGS FOR THE SIMREMOTE PC

In the SimREMOTE PC:

1. Go to **Start Menu->Control Panel->Network and Sharing Center**.
2. Click **Change adapter settings** in the left-hand area to display the Local Area and Wireless connections on the SimREMOTE PC.
3. Select the Local Area Connection you will use to connect directly to the C50r SimGEN Host, right-click and select **Properties** to see Figure 2:

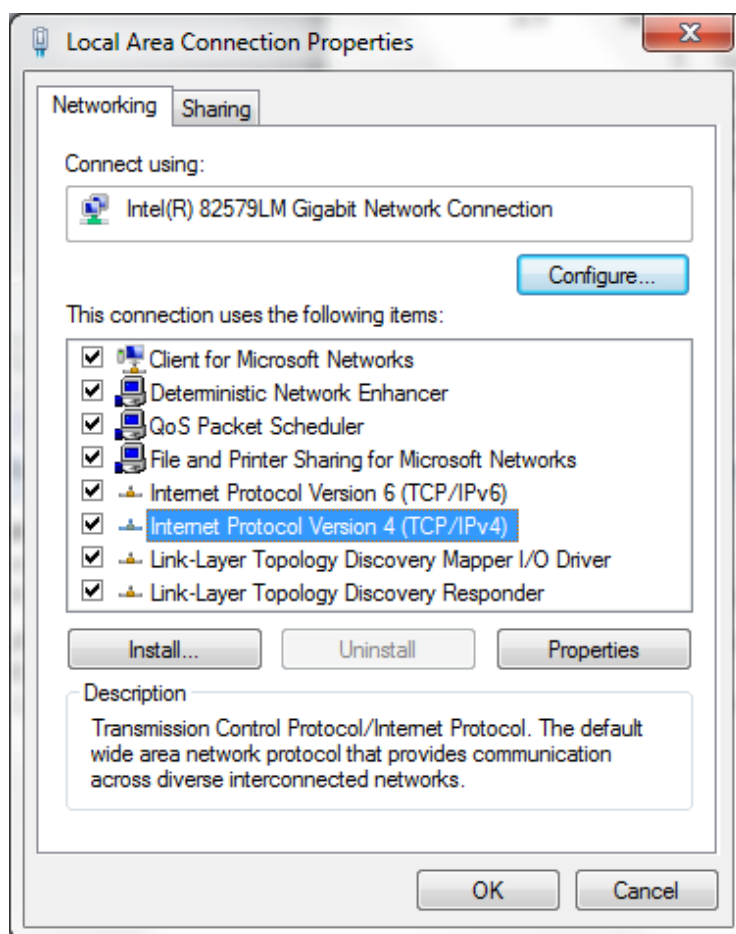


Figure 2 Local Area Connection Properties

4. Select **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties** to open the dialog in Figure 3:

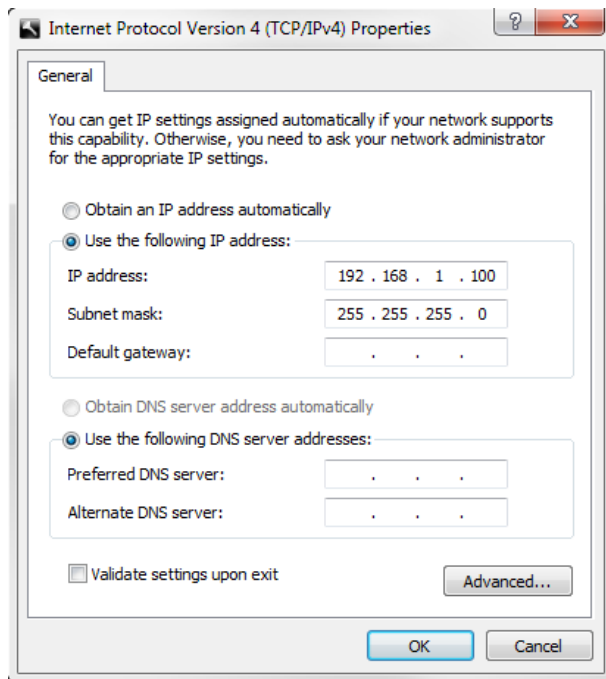


Figure 3 Configuring IP Settings

5. Select the option **Use the following IP address:**
 The **IP address** of the SimREMOTE PC you enter should be a private, or local, address which is 192.168.x.x.
 The C50r SimGEN Host must have an IP address that is compatible with the IP address of the SimREMOTE PC. The C50r SimGEN Host IP address must be:
 - The same where the subnet mask is 255
 - Different where the subnet mask is 0
6. Click **OK** twice to complete setting up the SimREMOTE PC.

3.2 SETTINGS FOR THE C50R SIMGEN HOST

On the C50r SimGEN Host:

1. Log in to the gpssim account
2. Navigate to the folder **D:\posapp\software\Vx.x.x\gui\C50_control** and double-click on the file C50_control.exe (must be version 1.01 or higher)
3. In the main dialog of C50_control.exe, select the **REMOTE** option in the **SimREMOTE IP** area.
4. Set the IP address of the C50r SimGEN Host rear panel port REMOTE by selecting **SimREMOTE IP - SimREMOTE**, see Figure 4, then typing the IP Address you want to use. Figure 4 shows the IP Address 192.168.1.104.

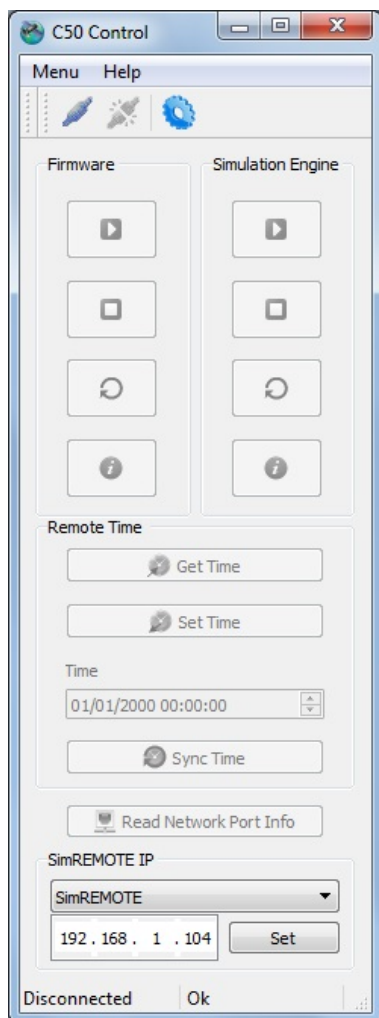


Figure 4 C50 control utility

5. Click **Set**
6. To correctly configure the IP Address of this port, follow the instruction in the prompt and shut down and restart the C50r SimGEN Host.

Note:

You must use "Shut down" from Windows to correctly apply the new IP settings.
Do not use Windows "Restart" as this will not correctly configure the C50r SimGEN Host.

3.3 RUNNING A SCENARIO USING REMOTE COMMANDS

Use an Ethernet cable to connect the Ethernet port of your SimREMOTE PC (the Ethernet port whose IP Address you set in section 3.1) to the C50r SimGEN Host rear panel port REMOTE, see Figure 5, which shows the correct Ethernet port circled in red.

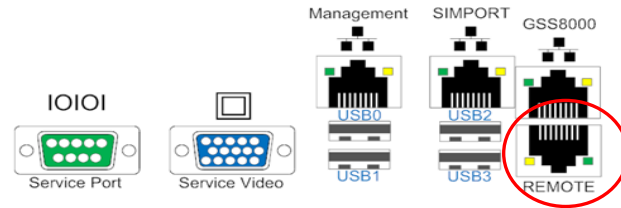


Figure 5 C50r SimGEN Host rear panel Ethernet ports

Check you can send remote messages:

1. On the C50r SimGEN Host, load a scenario in SimGEN, see reference b).
Notice SimGEN automatically enables Ethernet Remote messages.
2. Navigate to the Socket_string_send utility in **D:\posapp\software\Vx.x.x\gui**
3. Open the utility so you can send Remote messages.
4. In utility, **Select Options->TCP/IP address** to set the IP address of the C50r SimGEN Host, see Figure 6:

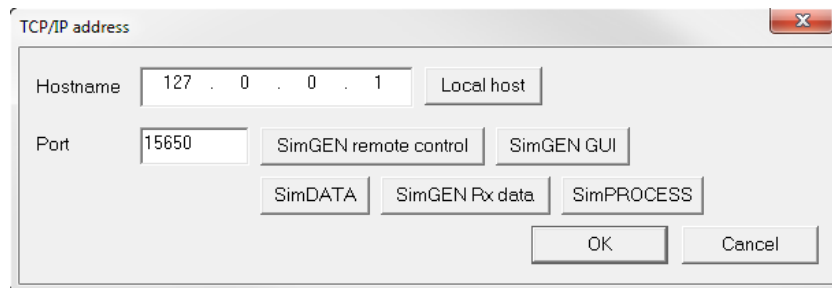


Figure 6 TCP/IP address dialog in Socket_string_Send.exe

5. Type the IP Address you want to use in the Hostname area
6. Click **SimGEN remote control** to set the Port number
7. Click **OK**
8. In the Socket_string_send utility send the remote command RU, which will remotely run the scenario currently open in SimGEN, see Figure 7.
Type 'RU' in the area next to **Send**, then click **Send**

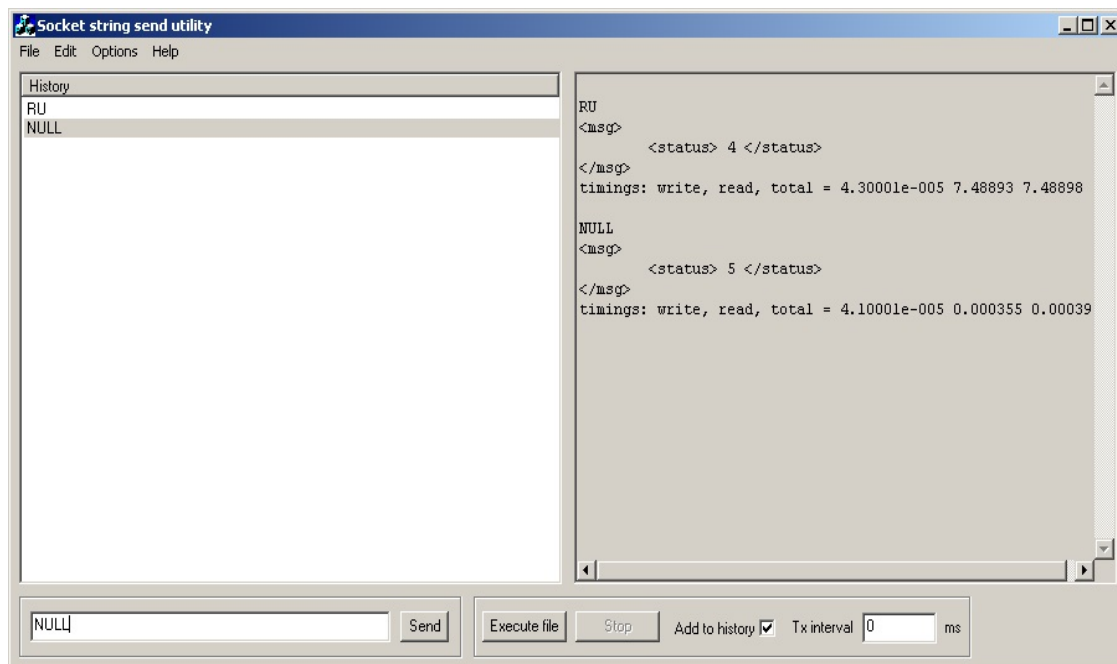


Figure 7 Socket_string_send utility

Reference a) details the available remote commands.

As SimGEN receives the remote command and actions it, the right-hand area of the socket_string_send utility returns the status of the scenario, see Figure 7.

Table 1 defines the returned status number:

Status number	Description
0	No scenario loaded
1	Loading
2	Ready
3	Arming
4	Armed
5	Running

Table 1 Scenario status numbers and their meaning

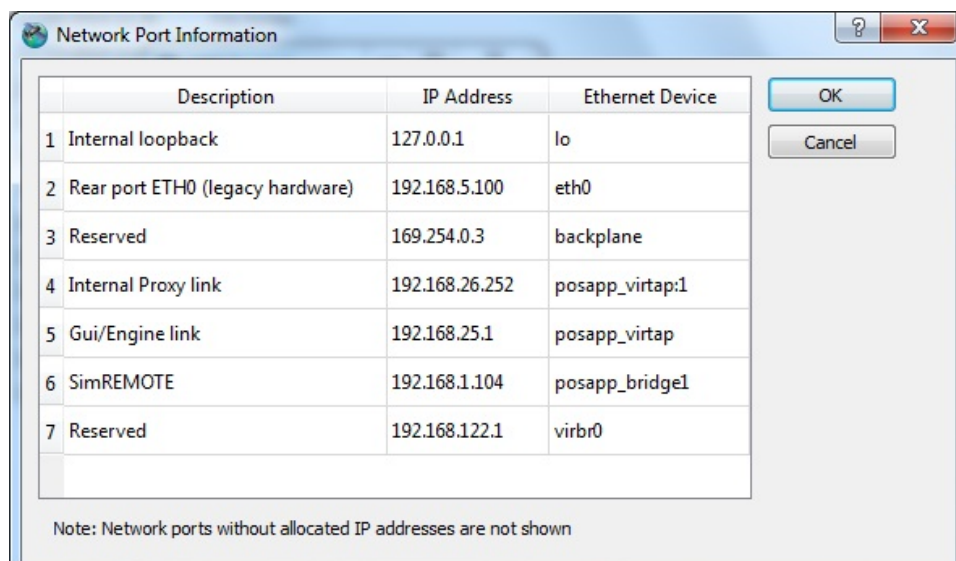
You can send a “NULL” command at any time to query the status of the scenario.

4 REMOTE SETUP USING A CORPORATE LAN

To set up a remote configuration for use over a corporate LAN:

1. Connect an Ethernet cable from your corporate LAN to the C50r SimGEN Host rear panel port REMOTE, see Figure 5, (which shows the correct Ethernet port circled in red)
2. Shutdown, and reboot the C50r SimGEN Host.
You must use “Shut down” from Windows, do not use Windows “Restart” as this will not correctly configure the C50r SimGEN Host
3. Once the C50r SimGEN Host has restarted and Windows has opened, navigate to **D:/posapp/software/Vx.x.x/gui/C50_control** and double-click C50 control.exe to open the utility, see Figure 4.

- Click **Read Network Port Info** to display a table of IP addresses and descriptions, see Figure 8:



	Description	IP Address	Ethernet Device
1	Internal loopback	127.0.0.1	lo
2	Rear port ETH0 (legacy hardware)	192.168.5.100	eth0
3	Reserved	169.254.0.3	backplane
4	Internal Proxy link	192.168.26.252	posapp_virtap:1
5	Gui/Engine link	192.168.25.1	posapp_virtap
6	SimREMOTE	192.168.1.104	posapp_bridge1
7	Reserved	192.168.122.1	virbr0

Note: Network ports without allocated IP addresses are not shown

Figure 8 Network Port Information

- Locate **Ethernet Device-posapp_bridge1**.
- The corresponding **IP address** gives the IP address to use for remote control of SimGEN (using the C50r SimGEN Host rear panel port REMOTE)

Now move to the SimREMOTE PC:

- Go to the Windows start menu and open a Command Prompt window
- At the prompt, type 'ping' followed by the IP address you found for **posapp-bridge1**, see Figure 8. This confirms you can access the C50r SimGEN Host rear panel port REMOTE over your corporate LAN.

Setting up a SimREMOTE PC to send remote commands to the C50r SimGEN Host over TCP/IP is now complete.

Reference a) describes setting up SimGEN for remote control.